The NKTg Law on Varying Inertia

The movement tendency of an object in space depends on the relationship between its position, velocity, and mass.

$$\mathbf{NKTg = f(x, v, m)}$$

In which:

- x is the position or displacement of the object relative to the reference point.
- v is the velocity.
- m is the mass.

The movement tendency of the object is determined by the following basic product quantities:

$$\mathbf{NKTg_1 = x \times p}$$

$$\mathbf{NKTg_2 = (dm/dt) \times p}$$

In which:

- p is the linear momentum, calculated by $p = m \times v$.
- dm/dt is the rate of mass change over time.
- $NKTg_1$ is the quantity representing the product of position and momentum.
- $NKTg_2$ is the quantity representing the product of mass variation and momentum.
- The unit of measurement is NKTm, representing a unit of varying inertia.

The sign and value of the two quantities $NKTg_1$ and $NKTg_2$ determine the movement tendency:

- If $NKTg_1$ is positive, the object tends to move away from the stable state.
- If $NKTg_1$ is negative, the object tends to move toward the stable state.
- If $NKTg_2$ is positive, the mass variation has a supporting effect on the movement.
- If $NKTg_2$ is negative, the mass variation has a resisting effect on the movement.

The stable state in this law is understood as the state in which the position (x), velocity (v), and mass (m) of the object interact with each other to maintain the movement structure, helping the object avoid losing control and preserving its inherent movement pattern.